

PACKAGE AMUSEMENT DEVICE AND METHOD

BACKGROUND OF INVENTION

1. Field of Invention

This invention relates to an amusement device and method, and more particularly to a package device and method for coupling touch and/or motion to sound and/or light.

2. Description of the Prior Art

The prior art is well aware of toys wherein sound or light is produced by manipulation of a part of the toy or by pressing an engagement means electronically coupled thereto. For example, U.S. Pat. No. 5,353,378 describes sound-emitting face apparel with multiple selection buttons for the retrieval of various sound signals, and describes an embodiment wherein such signals are rendered in tandem with activation of blinking lights positioned on the apparel. Further, numerous toy trucks have been developed over the centuries which produce audible sound and light upon pressing a part of the toy truck or a control device electronically connected to, or directed at, the same. Likewise, greeting cards which produce sound when opened by the consumer have been known for decades.

For centuries toys and other gifts, have been wrapped in packages for heightening the wonder associated with gift giving. Packages used to surround the gift usually consist of a cardboard box or a paper bag. However, plastic housings, such those approximating the shape of an egg, have also been used to package gifts. Packages used to cover gifts are very often themselves covered with colorful and attractive paper to further heighten the anticipation with respect to the gift inside.

Packaging material has conventionally not been an article of entertainment in itself. The entertainment value from such materials has for the most part emanated from the colorful patterns placed on them. Occasionally entertainment is associated with displacing a portion of a package connected to a actuating device, as for example in the well-known "Jack-in-the-Box."

U.S. Pat. No. 5,134,796 describes a simulated container which has entertainment value apart from the patterns placed on the container, and apart from any need to displace any portion of the container to activate an actuating device. The simulated container includes a peripheral wall formed of flexible material and houses a device which when actuated causes the container to carry out a bending motion. The container is "simulated" in that it is not actually designed to house an object or gift.

Heretofore, it has not been known in the art to heighten the anticipation of opening a gift by using light or sound generating sources electronically associated with the packaging material used to package the gift without need to displace a portion of the package itself. Rather such sources have been limited to use to incorporation in the gift itself or the card accompanying the gift.

SUMMARY OF THE INVENTION

The invention claimed provides for electronically coupling tactile, light and/or motion detectors placed in or on the packaging material of a gift to a sound and/or light generating source.

The invention involves a plurality of detectors disposed in or on the packaging material covering a gift or toy. Such detectors are connected to a plurality of microchips also

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placed in or on the packaging material. The plurality of microchips are pre-programmed to generate a series of signals which simulate a sense-detectible signal generating means, to produce, for example, a sound or linguistic string when activated. The plurality of microchips are connected to a plurality of sound amplifying devices in order for the sense-detectible signal to be more fully appreciated by the person interacting with the package.

In one embodiment of the invention the detectors are pressure-sensitive transducers.

In another embodiment of the invention the detectors are heat-sensitive detectors.

In another embodiment of the invention the detectors are motion-sensitive detectors.

In another embodiment of the invention the detectors are light-sensitive detectors.

In another embodiment of the invention the detectors are touch-sensitive detectors.

In one embodiment, detectors are placed near the side surface of a package such that a person picking up the package would engage the detectors. The detectors are connected to a microchip in communication with a sound amplifying device, such sound amplifying device generally being placed near the upper surface of the package. The microchip is pre-programmed to generate a simulated linguistic string such as "Hey get your hands off!" or "Happy Birthday!" or may be pre-programmed to generate more than one simulated linguistic string depending on which of a plurality of detectors is engaged.

In another embodiment, the sound amplifying device is located antipodal to, or away from, the detector such that any sound generated appears to be coming from within the packaging material.

In yet another embodiment, a gift such as a toy baby dinosaur, chick, or easter bunny is packaged in a real or simulated egg shell. Tactile and/or heat detectors are placed within the egg shell such that when the egg shell is touched and/or heated a select linguistic string is produced. The sound of such linguistic string could be directed such that it appeared to be coming from within the egg. Examples of such linguistic strings include "Let Me Out", "If you free me, I won't hurt you!", "Light detectors can also be used such that when one turns out the light or applies a blanket to the egg, a light source within the egg turns on. A linguistic string such as "Hey who turned out the lights" can accompany the turning off of the light source. The toy could be connected by a spring to one end of the egg such that when the egg is opened it would spring out at the person opening the egg. The egg packaging might be opened manually, by electronic means connected to the output of the detector (such that detector output activates the toy such that it undergoes a motional manipulation to break out of the egg), by a gas generating heat-sensitive means positioned such that the gas is released into the inside of the egg, or by utilizing heat labile material in the construction of the egg (such as gluten) such that application of heat causes the egg to "fall-apart."

A further aspect of the present invention is directed to a package amusement device for producing sound or light upon interaction with a package, comprising: packaging material; a detection means coupled with the packaging material for detecting interaction with the packaging material; a microprocessor means coupled with the packaging material and electronically connected to the detection means for generating a pre-programmed signal with respect to the type of interaction; an amplifying means, electronically connected to the microprocessor, for amplifying the signal

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from the microprocessor means; and a sense-detectable signal generating means electronically connected to the amplifying means

And yet a further aspect of the present invention is directed to a method of manufacturing a package material amusement device comprising: placing a plurality of detection means within packaging material; coupling said plurality of detection means to a plurality of microprocessors; coupling the microprocessors to a sense-detectable signal generating means.

And yet a further aspect of the present invention is directed to an egg-shell shaped package amusement device containing a toy gift, comprising: an egg-shell shaped housing; a gift within the egg-shell shaped housing; a detection means for detecting interaction with the egg-shell shaped housing; a microprocessor means coupled with the packaging material and electronically connected to the detection means; an amplifying means, electronically connected to the microprocessor, for amplifying a signal from the microprocessor; a sense-detectable signal generating means electronically connected to the amplifying means.

The packaging material of the claimed invention may encompass a box, a plastic shell, or paper, such as wrapping paper, and may also encompass the ribbon placed on or around other packaging materials.

There are many possible modifications and changes which could be made to the system without straying from the applicant's present invention. Such modifications would be obvious to those skilled in the art and should not limit the scope of applicant's claimed invention.

BRIEF DESCRIPTION OF THE DRAWINGS

For a further understanding of the objects and advantages of the present invention, reference should be had to the following Detailed Description Of the Illustrative Embodiments, taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of a box package comprising an embodiment of the invention.

FIG. 2 is a cross-sectional view of a box package side panel incorporating an embodiment of the present invention.

FIG. 3 is a schematic representation of the amusement value of a box-type package incorporating an embodiment of the present invention.

FIG. 4 is a cross-sectional view of an eggshell-type package incorporating a single type of detector in an embodiment of the present invention.

FIG. 5 is a cross-sectional view of an egg shell-type package incorporating multiple types of detectors in an embodiment of the present invention.

DETAILED DESCRIPTION OF THE ILLUSTRATIVE EMBODIMENT OF THE PRESENT INVENTION

Referring to FIG. 1 of the drawings, there is shown a box 9 containing transducer 11, microprocessor speech chip 14, speaker means 15, and power source 13. Microprocessor speech chip 14 and speaker means 15 are housed within inferior side 12 of box 9. Transducer 11 is housed antipodal to microprocessor chip 14 and speaker means 9 in superior side 10 of box 9, such that activation of transducer 11 causes the production of sound from a position antipodal to, or away from, its own position.

Referring now to FIG. 2, there is shown a cross-sectional view of a box housing an embodiment of the claimed

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